Department of Interior
Unmanned Aircraft Systems

Capabilities and Products

Summary

The Department of the Interior (DOI) has an established Unmanned Aircraft Systems (UAS) program with various vehicles, sensors, data-processing, and products available to assist with Hurricane Harvey response. Currently, the UAS available for response is limited to a quadcopter vehicle that can be adapted to carry various sensors: A digital video camera, still camera, thermal camera, and multi-spectral camera.

Current vehicle operations are limited by precipitation and wind, as well as launch site location. The vehicle weighs less than 4 lbs, measures 10”x18”x18”, and can fly up to 20 minutes at a time. Antenna range between the controller and vehicle range up to half a mile vertically and over 400’ vertically, with maximum speed of 55 mph.

Software and computing capabilities in possession of DOI include: flight planning and basemap creation; the ability to geotag both photos and video; and the ability to process and large store telemetry and imagery datasets (multi-TB). Products available include: geotagged photos and geotagged videos ranging from horizontal view to nadir (birds eye), orthoimagery, digital surface models, 3D image models, thermal imagery, and multi-spectral imagery.

Capabilities

Vehicle:
3DR Solo
Sensors:

- GoPro Hero4
- Ricoh GRII
- FLIR VUE PRO
- Micasense

Planning/Processing Software:

- Mission Planner
- Agisoft PhotoScan
- ArcGIS, Full Motion Video

For more information regarding UAS operations in Texas, contact Gil Dustin, 970-210-6153.

For more information on the DOI UAS program including privacy, regulations, policy, operator certification, etc., please visit the website or contact Brad Koeckeritz, Division Chief, Unmanned Aircraft Systems, 208-433-5091.